[0090] The optical imaging system configured as described above represents an example of aberration characteristics and modulation transfer function (MTF) characteristics illustrated in FIGS. **2** and **3**. FIGS. **4** and **5** are tables of examples of characteristics of lenses and aspherical characteristics of the optical imaging system illustrated in FIG. **1**.

[0091] As seen in FIG. **4**, an effective radius of the optical imaging system gradually decreases from the first lens **110** to the stop ST and gradually increases from the stop ST to an imaging plane. A maximum effective radius of the optical imaging system is 3.0626, which is larger than a length (ImgH) from the center of the imaging plane to an edge of the imaging plane.

[0092] An optical imaging system according to another embodiment will be described with reference to FIG. **6**.

[0093] The optical imaging system **200** according to the this embodiment includes an optical system including a first lens **210**, a second lens **220**, a third lens **230**, a fourth lens **240**, and a fifth lens **250**. In addition, the optical imaging system **200** includes a filter **260**, an image sensor **270**, and a stop ST.

[0094] In the present embodiment, the first lens **210** has a positive refractive power, and an object-side surface thereof is convex and an image-side surface thereof is concave. The second lens **220** has a negative refractive power, and both surfaces thereof is concave. The third lens **230** has a positive refractive power, and an object-side surface thereof is concave and an image-side surface thereof is convex. The fourth lens **240** has a negative refractive power, and both surfaces thereof is concave. The fifth lens **250** has a negative refractive power, and an object-side surface thereof is convex and an image-side surface thereof is concave. A stop ST is disposed between the first lens and the third lens.

[0095] The optical imaging system configured as described above represents an example of aberration characteristics and MTF characteristics as illustrated in FIGS. **7** and **8**. FIGS. **9** and **10** are tables of examples of characteristics of lenses and aspherical characteristics of the optical imaging system illustrated in FIG. **6**.

[0096] As seen in FIG. **9**, an effective radius of the optical imaging system gradually decreases from the first lens to the stop and gradually increases from the stop to an imaging plane. A maximum effective radius of the optical imaging system is **3.0466**, which is larger than a length (ImgH) from the center of the imaging plane to an edge of the imaging plane.

[0097] An optical imaging system according to another embodiment will be described with reference to FIG. **11**.

[0098] The optical imaging system **300** according to the present embodiment includes an optical system including a first lens **310**, a second lens **320**, a third lens **330**, a fourth lens **340**, and a fifth lens **350**. In addition, the optical imaging system **300** includes a filter **360**, an image sensor **370**, and a stop ST.

[0099] In the present embodiment, the first lens **310** has a positive refractive power, and an object-side surface thereof is convex and an image-side surface thereof is convex. The second lens **320** has a negative refractive power, and both surfaces thereof is concave. The third lens **330** has a positive refractive power, and an object-side surface thereof is concave and an image-side surface thereof is convex. The fourth lens **340** has a negative refractive power, and both surfaces thereof is concave. The fifth lens **350** has a negative refractive power, and an object-side surface thereof is convex and an image-side surface thereof is concave. A stop ST is disposed adjacently to the object-side surface of the first lens.

[0100] The optical imaging system configured as described above represents an example of aberration characteristics and MTF characteristics as illustrated in FIGS. **12** and **13**. FIGS. **14** and **15** are tables representing characteristics of lenses and aspherical characteristics of the optical imaging system illustrated in FIG. **11**.

[0101] As seen in FIG. **14**, an effective radius of the optical imaging system gradually decreases from the first lens to an image-side surface of the second lens and gradually increases from the object-side surface of the third lens to an imaging plane. A maximum effective radius of the optical imaging system is 3.0467, which is larger than a length (ImgH) from the center of the imaging plane to an edge of the imaging plane.

[0102] Table 1 represents optical characteristics of the optical imaging systems according to the embodiments. An overall focal length (f) of the optical imaging system is in a range of 3.10 to 3.45. In the optical imaging system, a focal length (f**1**) of the first lens is in a range of 2.0 to 2.3. In the optical imaging system, a focal length (f**2**) of the second lens is in a range of −3.9 to −4.3. In the optical imaging system, a focal length (f**3**) of the third lens is in a range of 13.0 to 20.0. In the optical imaging system, a focal length (f**4**) of the fourth lens is in a range of −12.0 to −17.0. In the optical imaging system, a focal length (f**5**) of the fifth lens is in a range of −9.0 to −21.0. In the optical imaging system, an overall length of the optical system is 3.80 or less. A maximum field of view of the optical imaging system is 80 degrees or more.

TABLE 1

Remarks	First Embodiment	Second Embodiment	Third Embodiment
f1	2.169	2.157	2.126
f2	−4.119	−4.210	−4.090
f3	13.949	18.470	16.279
f4	−15.756	−12.784	−16.121
f5	−9.851	−16.572	−19.656
TTL	3.760	3.760	3.760
f	3.352	3.334	3.194
ImgH	3.063	3.046	3.047
FOV	83.20	83.40	86.00

[0103] Table 2 represents values of Conditional Expressions of the optical imaging systems according to the disclosed embodiments.

TABLE 2

Remarks	First Embodiment	Second Embodiment	Third Embodiment
TTL	3.760	3.760	3.760
TTL/(ImgH*2)	0.614	0.617	0.617
FOV	83.20	83.40	86.00
G12	0.030	0.030	0.015
G12/G34	0.060	0.050	0.030
Df	0.110	0.110	0.110
Vf	55.10	55.10	55.10
Df/ImgH	0.036	0.036	0.036
Df/(TTL*ImgH)	0.010	0.010	0.010